III. REMARKS

The amendments and the new claims are fully supported by the disclosure on pages 28-34 of the specification, and thus do not constitute new matter.

LYON & LYON LLP

Dated: April 22, 2002

By: Samuel Tiu
Samuel N. Tiu
Reg. No. 47,997

29836
PATENT TRADEMARK OFFICE
LYON & LYON, LLP/ VALENTIS
633 West Fifth Street, Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600

AMENDMENT WITH MARKS SHOWN

IN THE CLAIMS:

Please cancel claims 17-44 without prejudice.

Please amend the following claims as follows:

1. (Amended) A plasmid for expression of recombinant eucaryotic genes comprising:

a first transcription unit comprising a first transcriptional control sequence transcriptionally linked with a first 5' -untranslated region[,] comprising a first synthetic intron, a first coding sequence, and a first [synthetic] 3' -untranslated region/poly (A) signal, wherein said first synthetic intron is between said control sequence and said first coding sequence; and

a second transcription unit comprising a second transcriptional control sequence transcriptionally linked with a second 5' -untranslated region[,] comprising a second synthetic intron, a second coding sequence, and a second [synthetic] 3' -untranslated region/poly (A) signal, wherein said second synthetic intron is between said control sequence and said second coding sequence.

2. (Amended) The plasmid of claim 1, wherein the first and second 5' untranslated regions are deficient in G, but rich in C and A residues. [said first transcriptional control sequence or said second transcriptional control sequence comprise cytomegalovirus promoter/enhancer sequences.]

3. (Amended) The plasmid of claim [1] 2, wherein the first and second 5' untranslated regions are about 54 nucleotides long exclusive of the first and second synthetic intron. [said first coding sequence or said second coding sequence encode a therapeutic molecule or a subunit of a therapeutic molecule.]

4. (Amended) The plasmid of claim [1] 2, wherein the first and second 5' untranslated regions are lacking in AT-rich sequences. [said first and second transcriptional control sequences are the same.]

5. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise 5' splice sites having a sequence CAGGTAAGT. [said first and second transcriptional control sequences are different.]

6. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise branch points having a sequence TACTAAC. [said first coding sequence and said second coding sequence comprise sequence coding for the p40 subunit of human IL-12 and sequence coding for the p35 subunit of human IL-12.]

7. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise 3' splice sites having a sequence TTCTTTTTTTCTCTTCACAGG. [said sequence coding for the p40 subunit of human IL-12 is 5' to said sequence coding for the p35 subunit of human IL-12.]

10. (Amended) The plasmid of claim 8, wherein the intron comprises a 5' splice site having a sequence CAGGTAAGT. [said first coding sequence or said second coding sequence encode a therapeutic molecule or a subunit of a therapeutic molecule.]

11. (Amended) The plasmid of claim 8, wherein the intron comprises a branch point having a sequence TACTAAC. [said transcriptional control sequence comprises a cytomegalovirus promoter/enhancer sequence.]

12. (Amended) The plasmid of claim 8, wherein the intron comprises a 3' splice site having a sequence TTCTTTTTTTCTCTTCACAGG. [said first coding sequence and said second coding sequence comprise a sequence coding for the p40 subunit of human IL-12 and a sequence coding for the p35 subunit of human IL-12.]

13. (Amended) A plasmid for expression of recombinant eucaryotic genes comprising:

a transcriptional control sequence transcriptionally linked with a first coding sequence, an IRES sequence, a second coding sequence, and a 3' -untranslated region/poly(A) signal, wherein said IRES sequence is between said first coding sequence and said second coding sequence; and

[an] a synthetic intron between said transcriptional control sequence and said first coding sequence.

14. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a 5' splice site having a sequence CAGGTAAGT. [said transcriptional control sequence comprises a cytomegalovirus promoter/enhancer sequence.]

15. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a branch point having a sequence TACTAAC. [said first coding sequence and said second coding sequence comprise a sequence coding for the p40 subunit of human IL-12 and a sequence coding for the p35 subunit of human IL-12.]

16. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a 3' splice site having a sequence TTCTTTTTTTCTCTTCACAGG. [said IRES sequence is from an encephalomyocarditis virus.]

Please add the following new claims:

45. (NEW) The plasmid of claim 1, wherein the first and second synthetic introns are about 118 nucleotides long.

46. (NEW) The plasmid of claim 8 wherein the intron is about 118 nucleotides long.

47. (NEW) The plasmid of claim 13, wherein the synthetic intron is about 118 nucleotides long.

48. (NEW) The plasmid of claim 1 wherein the fist and second synthetic introns are OPTIVS8B.

49. (NEW) The plasmid of claim 13 wherein the synthetic intron is OPTIVS8B.